



[Mathews, Shane W.](#) & [Bianchi, Constanza](#) (2010) *The role of the internet on international market growth of Australian firms : an exploratory study*. In: Proceedings of the Australia and New Zealand International Business Academy (ANZIBA) Conference 2010, 15-17 April 2010, Sydney, Australia.

© Copyright 2010 Please consult the authors.

**The Role of the Internet on International Market Growth of Australian Firms: An  
Exploratory Study**

**Dr. Shane Mathews**

*School of Advertising, Marketing and Public Relations, Faculty of Business  
Queensland University of Technology, Brisbane, Australia*

*Email: [sw.mathews@qut.edu.au](mailto:sw.mathews@qut.edu.au)*

**Dr. Constanza Bianchi**

*School of Advertising, Marketing and Public Relations, Faculty of Business  
Queensland University of Technology, Brisbane, Australia*

*Email: [constanza.bianchi@qut.edu.au](mailto:constanza.bianchi@qut.edu.au)*

# **The Role of the Internet on International Market Growth of Australian Firms: An Exploratory Study**

## **ABSTRACT**

The Internet has been shown to positively influence the internationalisation activities of firms through enhanced information, knowledge and network development. Although there has been evidence of a positive impact of the Internet on internationalisation process components, it is vague as to whether the Internet has an impact on firm international market growth. This paper examines the role of the Internet in the outward internationalisation of a cross-national sample of 224 firms from Australia. The results show evidence that there is a link between Internet usage, Internet intensity and the international market growth of the firm. The findings indicate that firms are using Internet technologies beyond simple e-mail and websites in their international marketing. For example, Internet directories and Internet market spaces are assisting international market expansion of the firm. Firms are integrating the Internet into international marketing processes such as advertising, marketing, market research and international market management as well as in data transference between company and supplier and company and customer. Further, there is evidence in this study of the statistical relationships between the use of website, e-mail and online sales with the international market growth of the firm.

## **INTRODUCTION**

There has been an ever-increasing emphasis placed on the potential importance of the Internet in the internationalisation of the firm (Aspelund & Moen, 2004, Bennett, 1997, Hamill, 1997, Moen, 2002, Moen, Endresen, & Gavlen, 2003, Petersen, Welch, & Liesch, 2002). Previous qualitative research suggests that the Internet aids international expansion and future international growth for the firm (Gabrielsson & Manek Kirpalani, 2004, Loane, 2005, Mathews & Healy, 2008). However, this line of research is still in its infancy and scant quantitative evidence has been presented in the literature to

explain the real impact of the Internet on firm internationalisation. The question following remains: How influential is the Internet for international market growth of firms?

Previous studies have indicated that firms perceive the Internet to be a mechanism that can benefit the company to grow in new businesses and new markets (Gibbs & Kraemer, 2004). However, little quantitative evidence has been provided concerning the effect of the Internet on *actual* growth in international markets. This paper draws on quantitative data from Australian firms to explore the positive impact of the Internet on International market growth. The following section reviews the literature pertinent to the Internet and internationalisation and present evidence of the relationships between Internet usage and Internet intensity of the firm and internationalisation. Further, implications for the growing body of theory will be discussed along with limitations and future direction.

## **LITERATURE REVIEW**

It has been suggested that small firms are able to create competitive advantages in international markets through the use of the Internet (Aspelund & Moen, 2004). The Internet gives small and medium firms the capabilities of internationalising, where this may not have been possible in the old economy (Aspelund & Moen, 2004, Bennett, 1997, Hamill, 1997, Simpson & Docherty, 2004). Research in the United Kingdom highlights investment is not an issue for SMEs implementation of Internet technology (Simpson & Docherty, 2004). Not only do large firms with sizeable capital capabilities have the ability to internationalise through the Internet, but small and medium companies may also do so with only moderate investment (Arnott & Bridgewater, 2002). Consequently, the nature of internationalisation has enhanced the international networks (Overby & Min, 2001, Petersen, Welch, & Liesch, 2002) and subsequently the components of internationalisation theory have altered (Buttriss & Wilkinson, 2003, Petersen, Welch, & Liesch, 2002) due to the Internet. This has occurred to such an extent that some

have referred to post-Internet internationalisation as *Internetisation*, rather than internationalisation (Bell, Deans, Ibbotson, & Sinkovics, 2001, Buttriss & Wilkinson, 2003).

Qualitative research shows that the Internet has enhanced the capabilities of SME's to expand into international markets in three ways (Mathews & Healy, 2008). First the Internet has given access to the same base of international customers for small or large firms. Second, the Internet allows firms to capture international communication opportunities and efficiencies through accessing and disseminating information. Finally, the Internet has allowed firms to interact with customers more frequently and on a deeper level. According to these authors, some firms use the Internet as a complement to the internationalisation process; however others use the Internet as a sole mechanism for internationalisation. Although this research provides a great contribution to the field, it needs to be tested quantitatively.

Furthermore, Moen (2002) highlights that the age of the firm and positive international orientation significantly influences export firm's active integration of Internet technology in international markets. Managerial orientation issues affect the implementation of strategies in Internet international environments as individual specific characteristics and behaviours affect the firm's degree of internationalisation (Aspelund & Moen, 2004, Kotha, Rindova, & Rothaermel, 2001, Moen, 2002). For example, marketing decisions such as market intelligence gathering, marketing communications, brand awareness, promotions, distribution and pricing elements of the marketing program are influenced by a small amount of decision makers (Arnott & Bridgewater, 2002, Davis, 1999, Freeman, 1998, Hamill, 1997, Harrison-Walker, 2002, Palumba & Herbig, 1998, Quelch & Klein, 1996, Samiee, 1998).

Aspelund and Moen (2004) confirm that the Internet intensity of the firm influences international vision, niche strategy and technology advantage, in small Norwegian high technology exporters. Internet

intensity being the integration of the Internet into international marketing activities, such as market research, marketing management and communications, as defined by Aspelund and Moen (2004). However, industry specific constructs relating to technology advantage and niche focus although important may be limited to high technology industries, as these industries tend to export from inception (Bell, 1995). These findings from the only structural equation model in the internetalisation literature identify the impact of the Internet intensity on the international orientation of the firm through the construct known as international vision, a behavioural element of the internationalisation process. The construct of international vision is measured through items relating to a global perspective of the firm, for example the firm views the world as a single market. This study is a seminal work in the literature as findings move the body of knowledge beyond conceptualisations and descriptive based statistics to a process of analysis indicating the richness of multivariate perspectives. The work by these researchers highlights the impact of the Internet on internationalisation process components, albeit a single behavioural component of international vision (Aspelund & Moen, 2004).

Notwithstanding the above, conjecture is present in the literature as to which model of internationalisation depicts the Internet's effects on internationalisation. For example, research has focused predominantly on network theory when interpreting the Internet's influence on internationalisation theory (Buttriss & Wilkinson, 2003, Hamill, 1997). However, these assumptions have not been explored extensively, and not all researchers subscribe to the parameters of network theory. Some advocate more conservative internationalisation theories, such as stages theory (Alon & Cannon, 2000), commonly referred to as the Uppsala model (Johanson & Weidersheim-Paul, 1975) and transactional cost model perspectives (Bennett, 1997). In the new Internet economy, alternative theories are being proposed for evaluation. These alternative theories of internationalisation post-Internet stem from supply chain management and knowledge-based theory (Overby & Min, 2001, Petersen, Welch, & Liesch, 2002).

It has been suggested that international supply chain management (ISCM) is a framework for explaining internationalisation in an Internet environment (Overby & Min, 2001). The premise founding ISCM theory questions the traditional stages internationalisation theory, as the stages theory advocates an ultimate goal of vertical integration (Overby & Min, 2001). However, the ISCM explanation neglects to explain the significant disintermediation caused by the Internet. That is, the Internet has altered industries crucially, such as the airline industry. This change in the supply chain caused by the Internet highlights the significant emphasis firms place on vertical integration, contradicting the foundation of ISCM. This is not to suggest that ISCM is not without merit. However, there are limitations within this proposed ISCM theory for explaining internationalisation post-Internet.

Further, Petersen, Welch and Liesch (2002) propose rethinking internationalisation theory in light of significant changes to information due to the Internet. Information and knowledge internationalisation components have altered due to the Internet, enough to warrant a new examination of internationalisation theory (Petersen, Welch, & Liesch, 2002). Learned knowledge of foreign market expansion is traditionally perceived as a slow and cumbersome process (Petersen, Welch, & Liesch, 2002). However, the Internet has enhanced the normally difficulty to obtain international information and learned knowledge. This may lead firms to a faster internationalisation process than before; however it depends on the level of Internet adoption or intensity of the firms (Mathews & Healy, 2008).

Overall, the above literature suggests that the Internet provides firms with a competitive advantage and helps firms to expand to international markets. However there is scant understanding as to how Internet usage or Internet intensity specifically enhances international market growth. Thus, further exploration is warranted in this important but underdeveloped area. Therefore the research question of this is study is: *How does Internet usage and intensity assist firm international market growth?*

## METHODOLOGY

The empirical evidence of this exploratory study is based on a quantitative study conducted with Australian firms. This research is focused on a single country study of Australian firms that have engaged in international market expansion. A sample of 5886 firms was chosen from the Austrade database of Australian exporters ([www.austrade.com.au](http://www.austrade.com.au)). This database was chosen because is the most comprehensive and current database available in Australia. The sample frame considered four industry sectors: Agribusiness, Business & Financial Services, Consumer Goods, and Information Communication Technology. These industries were chosen because they represent the four top industries of Australian exporters, accounting for A\$93.2 billion in export for 2006-2007 . The database provided information on company name, international manager's name, contact details (address, phone number and email address) as well as product details and the international history of the firm. Every third firm was chosen, thus approximately 1,800 firms from the database were phoned to encourage participation and screened for eligibility. 1,358 firms were either not contactable, sources were not available or the firm had no international customers (firm had international customers in the last 12 months). Out of the 442 eligible firms, 224 firms responded with a response rate of 50.5%, which is considered a reasonable rate given that business surveys normally have poor response rates (Frazer & Lawley, 2000).

The research explores the Internet usage and intensity of the firm and international market growth; therefore the unit of analysis for this study is *the firm*. This is consistent with the literature surrounding Internet and internationalisation theory (Aspelund & Moen, 2004, Melewar & Stead, 2002, Moen, 2002, Moen, Endresen, & Gavlen, 2003, Morgan-Thomas & Bridgewater, 2004). International marketers and international decision makers were chosen as key informants either to fill out personally or directed to the person most responsible for the firm's internationalisation decisions (Malhotra, 1996). Only those with knowledge of the internationalisation of the firm were eligible (Mitchell, 1994).



The survey instrument was a structured questionnaire. Both web-based and mail-out questionnaires were used in the collection process, enabling efficient distribution of large numbers of surveys over a broad geographical area (Malhotra, 1996, Sekeran, 2000). Prior to administering the questionnaire, it was essential to pre-test the instrument in order to ensure reliability (Hair, Bush, & Ortinau, 2000). Firstly, a panel of experts consisting of seven academics reviewed the questionnaire. Secondly, twelve firms with international operations were used to pre-test the questionnaire, resulting in minor modifications.

Drawing on existing literature, scale items were adopted and respondents were asked to rate their perceptions on seven-point likert- scale. *Internet usage* of the firm was measured using a seven-point Likert scale anchored at (1) 'no usage' and (7) 'extensive usage'. *Internet intensity* was measured through a seven-point scale of application of the Internet, such as marketing and advertising, sales to customers, after-sales service and support, market research, management of international market information, purchasing/procurement, exchange of operational data with suppliers and exchange of operational data with business customers (Aspelund & Moen, 2004, Gibbs & Kraemer, 2004, Hamill, 1997). *International market growth* for firms was measured by firm performance in new country markets, new customers in existing country markets and penetration of existing customers. A seven-point Likert scale was used, anchored at (1) significantly decreased to (7) significantly increased sales over the last 12 months. Although, these measures were adapted from the traditional theoretical framework in corporate growth (Ansoff, 1969, Ansoff, 1965, Ansoff, 1968) many other researchers in internationalisation and the Internet have also viewed growth as a pivotal variable in measurement (Gibbs & Kraemer, 2004, Hamill & Gregory, 1997, Morgan-Thomas & Bridgewater, 2004, Prasad, Ramamurthy, & Naidu, 2001, Ryssell, Ritter, & Gemunden, 2004, Torre & Moxon, 2001).

The measurement scales were drawn from research investigating information, the Internet and internationalisation. Internet usage was measured in this study on an intensity scale, which has been substantiated through factor analysis (Aspelund & Moen, 2004, Gibbs & Kraemer, 2004, Hamill, 1997). That is, Internet intensity can best be measured by evaluating applications such as marketing and advertising, online sales to customers, after-sales service and support, market research, management of international market information, online purchasing/procurement, exchange of operational data with suppliers and exchange of operational data with business customers (Aspelund & Moen, 2004, Gibbs & Kraemer, 2004, Hamill, 1997). Thus, both Internet usage and Internet intensity are measured in this study. The measure of *international market growth* scale, items were adapted from Ansoff (1957, 1965, and 1968) and Gibbs and Kraemer (2004). That is, this measure adapts perceived market penetration and new business/market from Gibbs and Kraemer (2004) and Ansoff's (1957, 1965, and 1968) market matrix vectors of market penetration and market development.

Internet delivery method was used as the primary method to collect data. A telephone screening process identified those firms eligible for the study. Once eligibility was established, participants selected either an Internet web-based or mail survey. With the exception of 12 firms who preferred a mail survey 418 participants accepted an e-mail questionnaire, which corroborates findings from recent research that highlights that top managers prefer electronic surveys (Griffis, Goldsby, & Cooper, 2003). A single reminder e-mail was also sent to participants.

Common method variance was assessed by using a variety of scale anchors so that respondents did not simply 'gloss over' questions (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Further, dependent and independent variables were separated and different types of questions asked for each to stimulate a specific response for a particular item (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). To increase the reliability of the questionnaire, interval scales were used predominantly, with limited use of ratio

and nominal scales. Further, clear guidelines were given to respondents. The instrument was pre-tested extensively and modified accordingly. To increase content validity, established scales or adapted scales were used. Data analysis was used to help differentiate similar scale measures and distinguish accurate measures for specific constructs. To assess non-response bias, a high response rate created a more representative set of respondents and limits non-response, due to high participation. Further, an independent credible data source—in this case, the Australian Bureau of Statistics— was used to assess the respondent characteristic, establishing the respondent as representative of the population of firms in Australia. For example, geographical locations such as postcodes may be used (Wickramasekera & Oczkowski, 2006). Thirdly, the characteristics of eligible respondents matched those who actually submitted or participated. And lastly, a more rigorous process of using an extrapolation method such as a two tail T test ensured that the data set had no non response bias issues (Armstrong & Overton, 1977).

## **DATA ANALYSIS**

### ***Firm Characteristics:***

Regarding respondent and company characteristics, Table 1 shows that respondent firms had an average of 85 employees, with 96% of the firms falling within the classification of small and medium-sized enterprises (SME) with 1–200 employees (Australian Bureau of Statistics, 2002). Small and medium-sized firms account for 97% of the business population (Australian Bureau of Statistics, 2004). Thus, the respondents adequately represented the broader business population in Australia. Further, the geographical location or postcode of the firms was also representative of the broader Australian business community (Australian Bureau of Statistics, 2007). The bulk of respondents were managing directors (30.6%), international and marketing/sales managers (20%), general managers and other managers responsible for international decisions (29.7%), as seen in Table 1. Respondents also

consisted of owners (8.4%) and chief executive officers, vice presidents, chief organisational officers and chief marketing officers (10.2%).

**Table 1: Firm characteristics: size, respondent position, and location**

Profile	Parameters	No. Respondents	%
<b>Size (No. Of Employees)</b>	1–5	66	29.5
	6–19	76	28.2
	20–200	71	38.2
	200+	9	4.0
	Missing	2	1.0
	Total	<b>224</b>	
<b>Respondent Function</b>	Owner	19	8.4
	CEO/CFO/COO/VP	23	10.2
	Int./ marketing manager	45	20.0
	Manager (GM & other)	67	29.7
	Managing directors	69	30.6
	Missing	1	.5
	Total	<b>224</b>	
<b>Location (State/Territory)</b>	NSW	78	35.0
	VIC	53	23.7
	QLD	46	20.7
	WA	23	10.4
	SA	18	8.0
	TAS	5	2.2
	Missing	1	0.5
	Total	<b>224</b>	

Note: N=224, Source: developed for this research

In Table 2, the year in which firms had been established ranged from the year 1833 to 2006. The average age of firms was 22 years, with the majority (90%) established after 1981. Respondents had a mean of 10 years experience with the firm and 16.6 years within their industry, highlighting that they respondents were data-rich. The mean age of respondents was 45 years of age, with the range from 22 to 83 years of age, as seen in Table 2.

**Table 2: Firm's profile age and experience characteristics**

Profile	Parameters	No.	Percentage%
<b>Year firm established</b>	Pre-1950	13	6.0
	1951-1980	31	14.4
	1981-2000	131	59.7
	2001-2006	43	19.9
	Missing	6	2
	Total	224	
<b>Industry experience</b>	1-3 years	17	7.7
	4-6 years	26	11.4
	7-15 years	76	34.1
	16+ years	105	46.8
	Missing	0	0
	Total	224	
<b>Firm experience</b>	1-3 years	52	23.3
	4-6 years	41	18.3
	7-5 years	86	38.3
	16+ years	45	20.1
	Missing	0	0
	Total	224	
<b>Age of respondent</b>	18-25 years	6	2.8
	26-35 years	35	15.8
	36-45 years	68	30.7
	46-60 years	99	44.2
	60+ years	14	6.5
	Missing	2	.5
	Total	224	

Note: N=224, Source: developed for this research

### ***Internet Usage***

As seen in Table 3, all firms surveyed used the Internet for e-mail, with 89.2% of firms using e-mail extensively in their business and zero firms recording no use, as seen in Table 3. In contrast, personal consumer web-space was not used by 42.7% of firms, and only 12.3% of firms used the technology extensively. Intranet use was polarised: 32.7% of firms used intranets extensively and 33% of firms did not use them at all. These findings indicated a complex Internet usage profile beyond simple e-mail and website usage. More specifically, firms used e-mail and websites extensively. However, firms used consumer personal web-space (57.3%); online support systems, such as auto-response and tracking systems (68%); intranet systems (66.4%); online transactional facilities (56.1%); Internet directories (88.7%) and Internet marketplaces (63.5%), showing diversity in usage and types of Internet

technology. The high use of Internet directories and Internet marketplaces showed a level of sophistication not captured previously in the literature. These virtual intermediaries create access to a broad customer base that was not possible without the Internet, highlighting the extensive use of virtual intermediaries for international marketing.

**Table 3: Respondent profiles Internet usage characteristic summary**

<b>Internet usage Internet use (Alpha= .61) for international consumers</b>	<b>No use (%)</b>	<b>2 (%)</b>	<b>3 (%)</b>	<b>4 (%)</b>	<b>5 (%)</b>	<b>6 (%)</b>	<b>Extensive use (%)</b>	<b>Mean (#)</b>
<b>e-mail</b>	0.0	0.0	0.9	1.8	2.8	5.2	89.2	6.80
<b>Website</b>	4.1	4.6	5.5	11.4	10.5	15.1	48.9	5.61
<b>Personal web-space</b>	42.7	13.6	10.0	7.3	7.7	6.4	12.3	2.93
<b>Online support systems, e.g. auto response</b>	32.0	16.2	11.3	9.9	7.2	6.8	16.7	3.33
<b>Intranet system</b>	33.6	6.8	1.8	9.5	6.8	8.6	32.7	4.06
<b>Transaction facilities, e.g. shopping cart</b>	43.9	9.4	5.4	9.9	11.2	6.3	13.9	3.09
<b>Internet directories, e.g. yellowpages.com.au</b>	11.3	9.0	11.3	16.7	12.6	15.8	23.4	4.52
<b>Internet marketplaces, e.g. ebay.com</b>	36.5	12.6	10.8	12.6	7.7	7.2	12.6	3.15

Note: N=224, Source: developed for this research

### ***Internet Intensity***

Table 4 shows that many firms are integrating the Internet in many international marketing processes with 70% of firms using the Internet for Marketing and Advertising for international customers and prospects. Further, firms use the Internet for online after sales service (59.3%), market research (69.2%), management of the international markets (63.2%), procurement (56.7%) and data transference with suppliers (51.9%) and customers (62.6). These findings highlight the depth and breadth of integration of the Internet in international marketing activity. However, only 42.8% of firms

use online sales for generating international customers, as seen in Table 4. These findings highlight the importance of the Internet for these firms for both the generation and service of international customers.

**Table 4 Respondent profiles Internet intensity characteristic summary**

<b>Internet intensity (Alpha= .82) for international consumers</b>	<b>No use (%)</b>	<b>2 (%)</b>	<b>3 (%)</b>	<b>4 (%)</b>	<b>5 (%)</b>	<b>6 (%)</b>	<b>Extensive use (%)</b>	<b>Mean (#)</b>
Marketing and Advertising	2.7	7.2	7.2	12.6	17.9	15.7	36.8	5.30
Online Sales	38.4	11.2	7.6	7.1	8.5	5.8	21.4	3.39
Online after sales service	19.3	10.8	10.8	12.6	13.5	10.3	22.9	4.13
Market research	11.6	11.6	7.6	13.4	15.6	17.4	22.8	4.53
Manage of international market	13.9	10.8	12.1	13.9	16.1	14.8	18.4	4.26
Procurement	15.6	14.3	13.4	13.8	18.3	9.4	15.2	3.95
Data: suppliers	25.0	12.9	10.7	11.6	17.9	9.4	12.5	3.62
Data: clients	17.4	9.8	10.3	13.4	16.1	9.4	23.7	4.24

Note: N=224, Source: developed for this research

### ***Firm Performance***

Table 5 shows that the annual mean revenue for the surveyed firms was A\$28 million. The majority of firms made less than A\$5 million per annum (68.5%), with 87.6% making less than A\$20 million. Thus, the majority of firms were small and medium sized firms. Further, the mean number of international markets was 15. That is, the average firm had customers in 15 country markets, with the vast majority of firms (82.3%) having less than 20 markets. Firms were not asked about first year they had international customers. That is, firms were only asked about age of firm and number of country markets.

The main country markets were the United States of America, New Zealand, the United Kingdom, Singapore, Hong Kong, Papua New Guinea and Japan. Asian countries formed the bulk of the main country markets, accounting for 39%, as seen in Table 4. Other minor groups of markets include South Africa, Middle East, Canada and some European countries such as France, Germany, and Netherlands. However, the three main markets are all English speaking markets.

The mean annual turnover from international markets was 38%, with the vast majority recording an international turnover accounting for more than 49% of their turnover (65.6%), as seen in Table 5. Finally, only 32.6 % of firms indicated they have a physical presence such as a store or office in the international markets which they conduct their business. Conversely, 67.4 % of firms who engaged in international business did not have a physical presence in international markets even though their customers were located in these markets.

**Table 5: Firm's International Market Characteristics**

Profile	Parameters	No.	Percentage%
<b>Annual turnover</b>	\$1m	61	34.3
	\$1–5m	60	34.2
	\$5–20m	34	19.1
	\$20–100m	14	07.9
	\$100m+	8	04.5
	Missing	47	21
	Total	224	
<b>International percentage of annual revenue (%)</b>	1–5%	36	17.2
	6–15%	41	19.6
	16–49%	62	28.8
	50–100%	72	34.4
	Missing	13	7
	Total	224	
<b>International markets</b>	1–2 markets	21	9.3
	3–5 markets	75	34.9
	6–10 markets	47	21.8
	10–20 markets	35	16.3
	20 + markets	38	17.7
	Missing	8	4
	Total	224	
<b>Main country markets</b>	United States	43	19.54
	New Zealand	37	16.81
	United Kingdom	25	11.36



	Singapore	16	7.27
	Hong Kong	13	5.90
	Papua New Guinea	12	5.45
	Japan	9	4.09
	Missing	2	1
	Total	224	
<b>Physical office or store within international market</b>	Presence	73	32.6 %
	No presence	150	67.4 %
	Missing	1	
	Total	224	

Note: N=224, Source: developed for this research

### ***Statistical Findings***

Statistical relationships between website usage and international market growth (increase in sales over the last 12 months) were found in the three English market growth categories. Website usage was positively correlated to the an increase in sales for new customers in new English speaking markets, new customers in existing English speaking markets and an increased usage by existing customers at a .05\*\* confidence interval. Whereas, website usage by firms in non English speaking country markets was only found to be statistically significant for usage by existing customers and not for new customers, as illustrated in Table 6.

e-mail usage in non English speaking markets by the firm was also found to be positively correlated for usage by existing customers (.05\*\* interval) and to a lesser extent for new customers in existing markets (.10\* interval). Conversely, the relationship between e-mail usage by the firm and international market growth in English markets was not found to be statistically significant.

Further, online sales and online after sales service were found to be positively correlated (.05 interval) with the number of country markets. That is, the great the implementation or Internet intensity of online sales and after sales service the larger the number of country markets the firm has customers purchasing from.

**Table 6: Significant correlations**

IV	DV (increase)	Sig.
<b>English country markets</b>		
Website usage	New customer new country	Significant **
Website usage	New customer existing country	Significant **
Website usage	Usage by existing customers	Significant **
<b>Non-English country markets</b>		
Website usage	New customer new country	Non significant
Website usage	New customer existing country	Non significant
Website usage	Usage by existing customers	Significant **
e-mail	New customer new country	Non significant
e-mail	New customer existing country	Significant at .10 *
e-mail	Usage by existing customers	Significant **
<b>No. of markets (countries)</b>		
Online sales	Number of country markets you have customers in	Significant **
Online after sales service		Significant **

Note: \*\*correlation at .05 confidence interval unless indicated

## DISCUSSION, LIMITATIONS AND FUTURE RESEARCH

The objective of this research was to explore the role of the Internet on the international market growth of firms. This study gives statistical evidence of Internet use, Internet intensity and international market growth in a body of knowledge, which is predominantly conceptual. That is, combining these two measures of Internet usage and Intensity helps researchers to better understand the role of the Internet in facilitating international market growth beyond simple e-mail and website usage which dominates the literature. The paper identifies the specific depth and breadth of Internet technology usage beyond e-mail and websites for the international firm. Further, a better understanding of how the Internet is being integrated into the main elements of international marketing activities contributes to the body of knowledge, which is predominantly based on general business activity and an oversimplified understanding of the Internet for the most part.

For firms that use the Internet, there is a positive relationship between the use of websites, e-mail, online sales and online after sales service with international market growth. The Internet has essentially created a more level playing field for firms with limited resource capacity to engage international

consumers. Hence, the Internet is enabling more growth into international markets for firms, which would not be possible in an old economy. Further, the Internet through websites is being used for growth of new markets and existing customers in English markets. However, in non-English markets the Internet through website and e-mail is being used to facilitate only existing country markets and customers. Thus, the Internet is challenged to facilitate international market growth when there is a perceived foreignness of a country market, in this case classified as non-English speaking markets. However, the Internet still plays a pivotal role in strengthening and enhancing existing customer and markets in non-English markets.

In conclusion, the findings of this study are consistent with previous research which suggests that the Internet has enhanced internationalisation for SMEs (Hamill & Gregory, 1997, Loane, McNaughton, & Bell, 2004, Petersen, Welch, & Liesch, 2002, Quelch & Klein, 1996). Furthermore, the Internet allows a broader scope of international markets for firms (McNaughton, 2001, McNaughton, 2003). This study goes beyond general conceptualisations and gives statistical evidence of specific Internet usage and Internet intensity of the firm in international markets as well as what Internet constructs are positively correlated with international market growth. However, this is a single study, a confirmatory study might yield more rigorous results. Future research should focus on the possible relationship between the Internet usage and intensity on the pace of international market growth over time. Further, researchers should endeavour to use both Internet usage and Internet intensity to better measure the Internet's impact on internationalisation theory for a more accurate understanding.

## REFERENCES

- Alon, Ilan & Nancy Cannon. 2000. Internet-based experiential learning in international marketing: the case of Globalview.org. *Online Information Review*, 24(5): 349-56.
- Armstrong, S. & T. Overton. 1977. Estimating Non response Bias in Mail Surveys. *Journal of Marketing Research*, 14(3): 396-402.
- Arnott, D. & S. Bridgewater. 2002. Internet, Interaction and implications for marketing. *Marketing Intelligence & Planning*, 20(2): 86-95.
- Aspelund, Arild & Oystein. Moen. 2004. Internationalization of small High-Tech Firms: The role of information technology. *Journal of Euro-Marketing*, 13(2/3): 85-105.
- Australian Bureau of Statistics. 2004. Characteristics of small business in Australia: ABS.
- Australian Bureau of Statistics. 2007. Counts of Australian Businesses, including entries and exits. Canberra: Australian Government: ABS.
- Australian Bureau of Statistics. 2002. Small Business in Australia. Canberra: ABS.
- Bell, J. 1995. The internationalization of small computer software firms: A further challenge to "stage" theories. *European Journal of Marketing*, 29(8): 60-75.
- Bennett, R. 1997. Export Marketing and the Internet. *International Marketing Review*, 14(5): 324-44.
- Buttriss, G & I Wilkinson. 2003. Towards a process Model of Internetalisation: Becoming an e-Business. Paper presented at 19th Annual IMP conference, Lugano, Switzerland.
- Frazer, L. & M Lawley. 2000. *Questionnaire design & administration*. Brisbane: John Wiley & Sons Australia.
- Gabrielsson, Mika & V. H. Manek Kirpalani. 2004. Born globals: how to reach new business space rapidly. *International Business Review*, 13(5): 555-71.
- Gibbs, J. & K. Kraemer. 2004. A cross country investigation of the Determinants of scope of e-commerce use: an institutional approach. *Electronic markets*, 14(2): 124-37.

- Griffis, S., T. Goldsby, & M. Cooper. 2003. Web-based and mail surveys: A comparison of response, data, and cost. *Journal of Business Logistics*, 24(2): 237-58.
- Hair, J., R. Bush, & D. Ortinau. 2000. *Marketing Research: a practical approach for the new millennium*. Singapore: McGraw-Hill.
- Hamill, J. 1997. The Internet and International Marketing. *International Marketing Review*, 14(5): 300-23.
- Hamill, J. & K. Gregory. 1997. Internet marketing in the internationalisation of U.K. SME's. *Journal of Marketing Management*, 13(1-3): 9-28.
- Johanson, J. & F. Weidersheim-Paul. 1975. The internationalization of the firm: Four Swedish cases. *Journal of Management Studies*, 12(3): 305-22.
- Loane, S. 2005. The role of the Internet in the internationalisation of small and medium sized companies. *Journal of International Entrepreneurship*, 3(4): 263-77.
- Loane, Sharon, Rod B McNaughton, & Jim Bell. 2004. The Internationalization of Internet-Enabled Entrepreneurial Firms: Evidence from Europe and North America. *Canadian Journal of Administrative Sciences*, 21(1): 79-96.
- Malhotra, N. 1996. *Marketing Research, an applied orientation*. New Jersey: Prentice Hall Inc.
- Mathews, S. & Marilyn Healy. 2008. From garage to global": the Internet and international market growth, an SME perspective. *International Journal of Internet Marketing and Advertising*, 4(2/3): 179-96.
- McNaughton, J. 2001. The export mode decision-making process in small knowledge-intensive firms. *Market Intelligence and Planning*, 19(1): 12-20.
- McNaughton, J. 2003. The number of export markets that a firm serves: Process models versus the born-global phenomenon. *Journal of International Entrepreneurship*, 1(3): 297-311.

- Mitchell, V. W. 1994. Using Industrial Key Informants: Some Guidelines. *Journal of the Market Research Society*, 36(April): 139-45.
- Overby, Jeffrey W & Soonhong Min. 2001. International supply chain management in an Internet environment: A network-oriented approach to internationalization. *International Marketing Review*, 18(4): 392-420.
- Petersen, Bent, Lawrence S Welch, & Peter W Liesch. 2002. The Internet and foreign market expansion by firms. *Management International Review*, 42(2): 207-22.
- Podsakoff, P. M., S. MacKenzie, Jeong-Yeon Lee, & N. P. Podsakoff. 2003. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5): 879-903.
- Quelch, J. & L. Klein. 1996. The Internet and international marketing. *Sloan Management Review*, 37(3): 60-76.
- Sekaran, U. 2000. *Research methods for business, a skill building approach*. United States of America: John Wiley & Sons.
- Simpson, Mike & Anthony J Docherty. 2004. E-commerce adoption support and advice for U.K. S.M.E.'s. *Journal of Small Business and Enterprise Development*, 11(3): 315-28.
- Wickramasekera, R. & E. Oczkowski. 2006. Stages Model Re-visited: a measure of the stage of internationalisation of a firm. *Management International Review*, 46(1): 39-55.